

S/N 10/014,842

Office Action Dated May 16, 2005

Response Dated November 4, 2005

Remarks

Applicants have received and reviewed an Office Action dated May 16, 2005. Claims 1-20 are pending. Applicants have amended claim 1, and added claim 20. Applicants submit the amended and newly added claims are supported by the specification. No new matter has been asserted.

Reconsideration of the application is requested in view of the above amendments and the following remarks.

Support for New Claims

Applicants have amended claim 1 to recite an interesterified coconut oil obtained from safflower oil. Support for this amendment is found in the specification at least at page 2.

Applicants have also amended claim 1 to recite an interesterified coconut oil comprising about 46 mol% of omega 6 polyunsaturated fatty acid and 17 mol% Lauric acid. Support for this amendment is found in the specification at least at page 9, line 9 of the table.

Applicants have added claim 20, which recites an interesterified coconut oil further comprising about 11 mol% of Myristic acid, about 9 mol% palmitic acid, about 2 mol% of stearic acid, and about 15 mol% of oleic acid. Support for this amendment is found in the specification at least at page 9, lines 5-8 of the table.

Claim Rejections Under 35 U.S.C. § 112

The Examiner rejected claims 1-9 under 35 U.S.C. § 112, first paragraph. Applicants respectfully traverse this rejection.

Without acquiescing to the Examiner's rejections and solely to expedite prosecution, Applicants have amended claim 1 to recite "46 mol%" of omega 6 polyunsaturated fatty acid. As the language the examiner objected to no longer is recited in the claim, Applicants believe claim 1 and its dependents are in condition for allowance. Notification to that affect is earnestly solicited.

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Claim Rejections Under 35 U.S.C. § 103(a)

Claims 1-9 were rejected under 35 U.S.C. § 103(a) as being obvious over Kaimal et al.

Applicants respectfully traverse this rejection and request reconsideration in view of the following arguments.

The Office Action asserts one having ordinary skill in the art at the time the invention was made would have been motivated to prepare the interesterified coconut oil comprising about 45.5 mol% to about 46 mol% Linoleic acid and 17 mol% Lauric acid.

Applicants argue the presently claimed process resulting in the presently claimed product surprisingly enhances the levels of Linoleic acid (omega 6 polyunsaturated fatty acids) and decrease the levels of Lauric acid in interesterified coconut oil. This is an improvement over Kaimal et al., the cited prior art. In the presently claimed product, the levels of Linoleic acid are increased by 22%, and the levels of Lauric acid are reduced by 35%. In contrast, in Kaimal et al., the level of Linoleic acid is increased by only 3% and the level of Lauric acid is reduced by 82%.

This evidence demonstrates the presently claimed invention has drastically improved the amount of Linoleic acid and reduced the levels of Lauric acid, which is desirable. Kaimal et al. do not even teach a product having similar levels of Linoleic acid and Lauric acid but merely lower levels of the same. Moreover, Kaimal et al. fail to teach one skilled in the art how to achieve the more effective product as disclosed in the presently claimed invention.

The Office Action asserts, "since the end product, the structured lipids, is known in the art, the product was rejected." Applicant respectfully submits that improvements upon known compositions and products can always be patentable. The presently claimed invention is an improvement over the product disclosed by Kaimal et al. because the amount of Linoleic acid in the presently claimed invention is surprisingly at much higher levels than in the product disclosed by Kaimal et al. For example, Kaimal et al. disclose a product that contains only 6 mol% Linoleic acid and 29.05 mol% Lauric acid. In contrast, the presently claimed invention results in interesterified coconut oil that contains 46 mol% Linoleic acid and 17 mol% Lauric acid.

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Further, the presently claimed product contains different amounts of saturated and unsaturated fatty acids. The following table compares the amounts of saturated and unsaturated fatty acids in the presently claimed invention and the product disclosed in Kaimal et al., compared to coconut oil.

Fatty acids	Coconut Oil	Kaimal et al.	Presently Claimed Product	Type
Caprylic (8:0)	2	7.5	0	Saturated
Capric (10:0)	3	11.7	0	Saturated
Lauric (12:0)	48	39.7	17	Saturated
Myristic (14:0)	24	21.1	11	Saturated
Palmitic (16:0)	9	5.4	9	Saturated
Stearic (18:0)	3	1.0	2	Saturated
Oleic (18:1)	9	5.4	15	Unsaturated
Linoleic (18:2) (omega 6)	2	8.2	46	Unsaturated

The amounts of Linoleic acid in the presently claimed product are surprisingly higher than the amount of Linoleic acid disclosed by Kaimal et al. Moreover, this table demonstrates the presently claimed composition does not contain caprylic and capric acids, which are unhealthy saturated fats. Further, the amount of oleic acid, an unsaturated fatty acid, has increased in the presently claimed invention. The present product has not only improved Linoleic acid but also increased the amount of oleic acid present, an omega-9 fatty acid, and eliminated some unhealthy saturated fatty acids.

Applicant respectfully submits that Kaimal et al. follow a different method from that used by Applicant. Kaimal et al. use 10% safflower oil for modification of coconut oil using a lipase-catalyzed reaction. The Applicants have used free fatty acids obtained from hydrolyzed safflower oil. The experiments in Kaimal et al. do not give clear cut evidence that the observed changes are only due to lipase catalyzed modification, as opposed to the result of mere dilution

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of coconut oil by safflower oil. Such products cannot be considered as structured lipids, but may be treated as mere blended oils.

Applicants have also proven that blended oils are not identical to structured lipids of similar composition in terms of physico chemical and nutritional properties. The presently claimed invention monitors omega-6 fatty acids that have been actually incorporated into coconut oil lipids. Hence it should be considered as a new structured lipid and not a blended oil in which omega-6 fatty acids are detected only because of the addition of a second oil.

Kaimal et al. do state that higher Linoleic acid means high stability and nutritional value. But, the teaching of Kaimal et al. do not help those skilled in the art achieve high levels of Linoleic acid. Thus, the instruction by Kaimal et al. that a higher level of Linoleic acid means high levels of stability and nutritional value does not establish obviousness *per se* for the presently claimed invention because one skilled in the art would not know how to arrive at such a compound based on the teachings of Kaimal et al.

Based on the foregoing reasons, the presently claimed product is not inherent in the lipid cited by the Kaimal et al. reference because the lipid *per se* is distinct.

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Summary

In view of the above amendments and remarks, Applicant believe claims 1-20 are in condition for allowance. Notification to that effect is earnestly solicited. If the Examiner believes a telephone conference would advance the prosecution of this application, the Examiner is invited to telephone the undersigned at the below-listed telephone number.

Respectfully submitted,

MERCHANT & GOULD P.C.

P.O. Box 2903

Minneapolis, MN 55402-0903

(612) 332-5300

Date:

Nov 4, 2005Mark T. Skoog

Mark T. Skoog

Reg. No. 40,178

MTS:hjk

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